

## Workshop-Announcement

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**Title: Current and Future Direction for Computational Biology Tools**

**Speaker: *Ricardo Paxson – MathWorks, Inc.***

**Date: Monday, June 7, 2010 – 14:00**

**Location: BioQuant – Main Lecture Hall (Im Neuenheimer Feld 267), Heidelberg**

### **Talk Abstract:**

This talk will give an overview of MathWorks' current and future efforts in the field of Computational Biology. Following a brief overview of the main goals of SimBiology and Matlab's Bioinformatics Toolbox, the focus of the talk will be on the demonstration of the new Pharmacokinetic/Pharmacodynamic (PKPD) capabilities of SimBiology. These new features are driven by an increased use of mechanistic models by pre-clinical PKPD groups in the Pharmaceutical Industry. Simultaneously, the systems biology field is also leveraging fitting mechanistic models to population datasets.

The talk will be rounded-up by a discussion on future challenges for computational biology tools as demanded by the systems biology community.

### **About the Speaker:**

Ricardo Paxson currently heads the Computational Biology Group at MathWorks and is responsible for the development of the Bioinformatics Toolbox and the SimBiology product. He has worked at MathWorks since 1992 on various aspects of the MATLAB product family. In the early 1990's, he worked on an object-oriented system for scientific visualization. Later on, he developed a multi-domain physical modeling simulation tool for use with Simulink. In 2003 he started a team to develop SimBiology; a tool aimed to help biologists build and analyze dynamical models. In 2009 the Bioinformatics and the SimBiology teams were joined to form the Computational Biology team. Mr. Paxson received a B.S. degree in aeronautical engineering from the Massachusetts Institute of Technology in 1992.

### **Round-Table Discussion:**

Following the talk, a round table discussion on the issue of the establishment of software tools for systems biology is planned. ***If you wish to participate in the discussion, please write an email to Klaus-Peter Michel ([k.michel@dkfz.de](mailto:k.michel@dkfz.de)) or Jan Eufinger ([j.eufinger@dkfz.de](mailto:j.eufinger@dkfz.de)).***